REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 1-82 are cancelled. Claims 83-87, and 89-92 are amended.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 82-92 are now pending in this application.

Claim Rejections - 35 U.S.C. § 103

Claim 83 stands rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,429,948 ("Rumph") in view of Applicants admitted prior art ("AAPA"), and in further view of U.S. Patent No. 5,949,964 ("Clouthier"). Claim 84 stands rejected under 35 U.S.C. § 103 as being unpatentable over Rumph, in view of AAPA and Clouthier, and in further view of U.S. Patent No. 5,642,444 ("Mostafavi"). Claims 85 and 86 stand rejected under 35 U.S.C. § 103 as being unpatentable over Rumph in view of AAPA and Clouthier, and in further view of U.S. Patent Publication No. 2002/0036645 ("Funahashi") and U.S. Patent 5,140,686 ("Cox"). Claim 87 stands rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,132, 024 ("Nelson") in view of AAPA, and in further view of Clouthier. Claim 88 stands rejected under 35 U.S.C. § 103 as being unpatentable over Nelson in view of AAPA and Clouthier, and in further view of Rumph. Claims 89-91 stand rejected under 35 U.S.C. § 103 as being unpatentable over AAPA in view of Nelson, and in further view of Rumph. Claim 92 stands rejected under 35 U.S.C. § 103 as being unpatentable over AAPA in view of Nelson and Rumph, and in further view of Clouthier. Applicants respectfully submit that the rejections are erroneous for the reasons that follow.

Independent claim 83 is directed to "a print control system," as amended. Independent claims 87 and 89 are directed to "a method of printing a document" and "a

method of printing on demand," respectively. Independent claim 83 recites the feature of "A print control system configured to control a **single** digital printer having a first machine-readable ink and a second ink that is not machine-readable at the same wavelength as said first ink." Independent claim 83 further recites that the "machine-readable pattern [is] printed in the first ink, wherein the pattern is configured to enable a digital pen to acquire data to enable its position in said pattern to be determined," and the "human-discernable content [is] printed in the second ink, [wherein the content] is not read by said pen in use," as amended.

Similarly, independent claim 87 recites the feature of "digitally printing a human-discernable content and a machine-readable position-determining pattern, configured to enable a digital pen to determine the pen's position in a pattern space onto the document using a **single** digital printer." Lastly, independent claim 89 recites the features of "printing, using a **single** digital printer, a machine-readable position-determining pattern with a first ink, wherein the pattern is configured to enable a digital pen to determine the pen's position in a pattern space, and wherein the pattern is readable at a specific, optionally non-visible, wavelength", as well as "printing, using the **single** digital printer, human-discernable content in a second ink," as amended. Accordingly, Applicants respectfully submit that each of the independent claims is directed to a single digital printer that is configured to print documents with a machine-readable pattern, in a first ink, that is configured to allow a digital pen to recognize its location in a pattern space, and human-discernable content in a second ink.

Turning now to the rejection of the pending claims. The Office Action rejects each of independent claims 83, 87, and 89 over different prior art combinations. As such, Applicants traverse the rejections separately and in-turn.

Independent Claim 83

Turning first to independent claim 83, the Office Action rejects this claim over a combination of Rumph, AAPA, and Clothier. However, Applicants respectfully submit that in contrast to presently pending independent claim 83, AAPA is directed only to printing a pattern with machine-readable ink on one printer, while printing the non-machine readable content on another printer. *See* Instant Application, Page 5, Lines 3-6 ("We recommend that

you use process black to print the pattern. Print on top of the pattern, on the other hand, must be printed with ink that is transparent to the pen, that is, the ink must have very low absorption of light of these wavelengths.") (Cited by Examiner in reference to the Publication). As such, AAPA fails to teach, disclose, or suggest the claimed features directed to a _single_ digital printer that is configured to print documents with a first machine-readable ink and a second non-machine readable ink.

In a similar vane, with respect to independent claims 83, the Office Action asserts that Clouthier "teaches this missing limitation: (d) where said system is adapted to route data representation of a pattern so as to by-pass a half-toning process. [Clouthier; Col.5 Lines 1-15; and Figure 1, #36; illustrates data by-passed through halftone module #26 via bypass to the print engine #28, col. 5, lines 11-15]." Office Action, Page 4. First, Clouthier is directed to a "A method for halftoning _an image_ to be rendered onto a media sheet [that] includes the steps of: classifying data portions of a received data stream into one of plural _image types_." Clouthier, Abstract. That is, Clouthier is not directed to a half-toning of a machine-readable pattern as claimed. Furthermore, and similar to above, in the invention as claimed in independent claim 83, the half-toning for human-readable content and half-toning by-pass for a machine-readable pattern is included in a _single_ digital printer. Such processes/components are included because the invention as claimed in independent claim 83 performs two types of printing in a _single_ printer. Applicants respectfully submit that the Office cannot simply ignore this key feature of each of independent claim 83 by rejecting this claim based on the teachings of references that are not directed to a dual-mode printer as claimed. Rumph, Mostafavi, Funahashi, and Cox do not otherwise cure these deficiencies.

Independent Claim 87

Turning now to independent claim 87, the Office Action rejects this claim over a combination of Nelson, AAPA, and Clouthier. However, Applicants respectfully submit that the disclosure of Nelson is directed to "Systems and method for determining presence of inks that are invisible to sensing devices." Nelson, Title. The detection of ink presence is used in the Nelson system to calibrate the printing system. _See e.g._ Nelson, 9:25-31 ("Accordingly the technique which we have developed works best with plural or multiple passes of the sensor

over, for example, a pattern of positional-calibration bars. Data are stored in the several runs, and the stored data averaged to extract the actual position of the bars printed in 'invisible' (e. g., yellow) ink--and from this information the desired pen-position offsets or the like."); claim 1 ("means for then operating the optical sensor to respond to areas where the printing medium and invisible-ink calibration deposits interact to form calibration indicia"). In Nelson, no mention is made of the machine-readable pattern, as claimed in independent claim 87 that is "configured to enable a digital pen to acquire data to determine the pen's position in a pattern space."

Furthermore, and similar to the rejection of independent claim 83, the Office Action asserts that Clouthier teaches the claimed feature of "wherein data representation of pattern bypasses a half-toning process." However, as asserted above, Clouthier is not directed to a half-toning of a machine-readable pattern as claimed. AAPA and Rumph do not otherwise cure these deficiencies.

Independent Claim 89

Lastly, addressing the Office Action's rejection of independent claim 89, the Office Action rejects this claim over a combination of AAPA, Nelson, and Rumph. At the outset, Applicants note that independent claim 89 has been amended to more clearly indicate that the method comprises the steps of "printing, using a **single** digital printer, a machine-readable position-determining pattern with a first ink, wherein the pattern is configured to enable a digital pen to determine the pen's position in a pattern space, and wherein the pattern is readable at a specific, optionally non-visible, wavelength", as well as "printing, using the **single** digital printer, human-discernable content in a second ink."

In reference to the rejection, it appears the crux of the Office Action's assertion is that AAPA teaches printing "a machine-readable position-determining pattern," while Nelson teaches printing "human-discernable content using a single digital printer." *See* Office Action, Page 11. However, Applicants respectfully disagree, and note that AAPA is not directed to a method of printing using a single printer, as claimed. Instead, AAPA is directed only directed to printing a pattern with machine-readable ink on one printer, while printing the non-

machine readable content on another printer. *See* Instant Application, Page 5, Lines 3-6. Furthermore, Nelson is similarly not directed to the operation of a <u>single</u> printer system, as claimed. Rather, the detection of ink presence is used in the Nelson system to calibrate the printing system. *See e.g.* Nelson, 9:25-31. Clouthier and Rumph do not otherwise cure these deficiencies.

Conclusion Regarding Patentability of All Claims

As such, each of the combinations applied in the Office Action to each of independent claims 83, 87, and 89 are deficient for at least the reasons cited above. Furthermore, each of dependent claims 83-86, 88, and 90-92 are dependent on one of independent claims 83, 87, and 89, and are therefore patentable at least for the reasons discussed above, as well as for the patentable features recited therein.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 08-2025. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 08-2025. If any extensions of time are needed for timely acceptance of papers submitted herewith,

Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 08-2025.

Respectfully submitted,

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